Amendments to the Claims

This listing of claims replaces all prior versions and listings of claims in the application:

1. (Previously presented)   A method of making measurements of block error ratio in a layered protocol communications system, the block error ratio being a ratio of a number of blocks received with one or more errors to a total number of blocks received, the method comprising:

   sending at least one message block which is defined at a selected layer in a protocol stack below a topmost layer thereof to open an information block flow and sending additional such message blocks to maintain the information block flow;

   monitoring ack/nack messages sent in response to the message blocks to determine whether the message blocks have been correctly transported; and

   calculating said block error ratio measurements based at least in part on the monitored ack/nack messages.

2. (Original) The method of claim 1, wherein the message blocks have a predetermined characteristic which causes the message blocks to be discarded upon processing at the selected protocol layer in a communications unit receiving the message blocks.

3. (Original) The method of claim 1, wherein the communications system is a general packet radio service (GPRS) and the selected protocol layer is a GPRS mobility management layer.

4. (Previously presented)   The method of claim 3, wherein the repeated message blocks are GMM_INFORMATION message blocks, said GMM_INFORMATION message blocks being information message blocks associated with the general packet radio service (GPRS).

5. (Original) The method of claim 4, wherein the predetermined characteristic comprises absence from a message block of any information elements other than a message header.

6. (Original) The method of claim 1, wherein the communications system is a general packet radio service (GPRS) and the selected protocol layer is a GPRS logical link control layer.

7. (Previously presented) The method of claim 6, wherein the repeated message blocks are GRR_DATA_REQ message blocks, wherein said GRR_DATA_REQ message blocks are information blocks associated with the general packet radio service (GPRS).

8. (Original) The method of claim 7, wherein the predetermined characteristic comprises inclusion in a message block of an invalid frame check sequence.

9. (Previously presented) A method of making measurements of block error ratio in a layered protocol communications system, the block error ratio being a ratio of a number of blocks received with one or more errors to a total number of blocks received, the method comprising:

constructing message blocks to conform to a message structure defined at a selected layer below a topmost layer in a protocol stack of the layered protocol communications system;

sending at least one of said message blocks through the system to open an information block flow and sending additional such message blocks through the system to maintain the information block flow;

monitoring ack/nack messages sent in response to the message blocks to determine whether the message blocks have been correctly transported; and

measuring block error ratio as a predetermined function of occurrence of monitored nack messages.

10. (Previously presented) The method of claim 9, wherein the message blocks are constructed to have a predetermined characteristic that causes the message blocks to be discarded upon processing at the selected protocol layer in a communications unit receiving the message blocks.

11. (Previously presented) The method of claim 9, wherein the communications system is a general packet radio service (GPRS) and the selected protocol layer is a GPRS mobility management layer.

12. (Previously presented)The method of claim 11, wherein the repeated message blocks are GMM_INFORMATION message blocks, wherein said GMM_INFORMATION message blocks are information message blocks associated with the general packet radio service (GPRS).

13. (Previously presented) The method of claim 12, wherein the message blocks are constructed to have a predetermined characteristic that causes the message blocks to be discarded upon processing at the selected protocol layer in a communications unit receiving the message blocks, the predetermined characteristic comprising absence from a message block of any information elements other than a message header.

14. (Previously presented) The method of claim 9, wherein the communications system is a general packet radio service (GPRS) and the selected protocol layer is a GPRS logical link control layer.

15. (Previously presented)The method of claim 14, wherein the repeated message blocks are GRR_DATA_REQ message blocks, wherein said GRR_DATA_REQ message blocks are information associated with the general packet radio service (GPRS).

16. (Previously presented)The method of claim 13, wherein the message blocks are constructed to have a predetermined characteristic that causes the message blocks to be discarded upon processing at the selected protocol layer in a communications unit receiving the message blocks, the predetermined characteristic comprising inclusion in a message block of an invalid frame check sequence.

17. (Previously presented)A method of making measurements of block error ratio in a general packet radio service (GPRS) layered protocol communications system, the block error ratio being a ratio of a number of blocks received with one or more errors to a total number of blocks received, the method comprising:

constructing message blocks to conform to a message structure defined at a selected one of

(i) a GPRS mobility management layer and

(ii) a GPRS logical link control layer

in a protocol stack of the GPRS layered protocol communications system, said message blocks being respectively one of

(i) GMM_INFORMATION message blocks defined in the mobility management layer, wherein said GMM_INFORMATION message blocks are information message blocks associated with the general packet radio service (GPRS), and

(ii) GRR_DATA_REQ message blocks defined in the logical link control layer, wherein said GRR_DATA_REQ message blocks are information associated with the general packet radio service (GPRS);

sending at least one of said message blocks through the system to open an information block flow and sending additional such message blocks through the system to maintain the information block flow;

monitoring ack/nack messages sent in response to the message blocks to determine whether the message blocks have been correctly transported; and

measuring block error ratio as a predetermined function of occurrence of monitored nack messages.

18. (Previously presented) The method of claim 17, wherein the message blocks are constructed to have a predetermined characteristic that causes the message blocks to be discarded upon processing at the selected protocol layer in a communications unit receiving the message blocks.

19. (Previously presented)The method of claim 18, wherein the predetermined characteristic comprises:

(i) absence from a message block of any information elements other than a message header in the case of GMM_INFORMATION message blocks, wherein said GMM_INFORMATION message blocks are information message blocks associated with the general packet radio service (GPRS), and

(ii) inclusion in a message block of an invalid frame check sequence in the case of GRR_DATA_REQ message blocks, wherein said GRR_DATA_REQ message blocks are information associated with the general packet radio service (GPRS).

20. (Previously presented)Apparatus for making measurements of block error ratio in a layered protocol communications system, the block error ratio being a ratio of a number of blocks received with one or more errors to a total number of blocks received, the apparatus comprising:

a message block transmitter for constructing message blocks to conform to a message structure defined at a selected layer below a topmost layer in a protocol stack of the layered protocol communications system, and for sending at least one of said message blocks through the system to open an information block flow and sending additional such message blocks through the system to maintain the information block flow; and

a monitor for monitoring ack/nack messages sent in response to the message blocks to determine whether the message blocks have been correctly transported, and for measuring block error ratio as a predetermined function of occurrence of monitored nack messages.

21. (Previously presented)Apparatus for making measurements of block error ratio in a general packet radio service (GPRS) layered protocol communications system, the block error ratio being a ratio of a number of blocks received with one or more errors to a total number of blocks received, the apparatus comprising:

a message block transmitter for constructing message blocks to conform to a message structure defined at a selected one of

(i)   a GPRS mobility management layer and

(ii)   a GPRS logical link control layer

in a protocol stack of the GPRS layered protocol communications system, said message blocks being respectively one of

(i)   GMM_INFORMATION message blocks defined in the mobility management layer, wherein said GMM_INFORMATION message blocks are information message blocks associated with the general packet radio service (GPRS), and

(ii)   GRR_DATA_REQ message blocks defined in the logical link control layer, , wherein said GRR_DATA_REQ message blocks are information blocks provided with a three-octet header and a three-octet frame check sequence,

and sending at least one of said message blocks through the system to open an information block flow and sending additional such message blocks through the system to maintain the information block flow; and

a monitor for monitoring ack/nack messages sent in response to the message blocks to determine whether the message blocks have been correctly transported, and for measuring block error ratio as a predetermined function of occurrence of monitored nack messages.

22. (Canceled)

23. (Currently amended)   The method of claim 1 wherein the steps of sending at least one message block to open an information block flow and sending additional such message blocks to maintain the information block flow occurs at a transmitting station[[s]] and wherein the step of monitoring ack/nack messages sent in response to the message blocks also occurs at said transmitting station.